

USES OF KAPPA-CONOTOXIN PVIIA

The invention relates to uses of kappa-conotoxin PVIIA (κ -PVIIA), analogs and derivatives for activating ATP-sensitive K^+ channels. The activation of ATP-sensitive K^+ channels is useful for opening K_{ATP} channels which can be used to treat a wide range of disease and injury states, including cerebral and cardiac ischemia and asthma.

Figure 1: A schematic diagram of a 1D lattice chain with N sites. The chain is represented by a horizontal line with N discrete sites. The left end is labeled "Left lead" and the right end is labeled "Right lead". The sites are numbered $1, 2, \dots, N$ from left to right. The hopping parameter t is indicated between adjacent sites. The on-site energy is labeled ϵ_i . The chain is coupled to two leads, each represented by a semi-infinite chain of sites. The leads are labeled "Left lead" and "Right lead".